OPTION LU15
UNMARKED INVESTIGATIONS SEDAN
FY2022

INSTRUCTIONS TO CONTRACTOR:

The contractor shall explicitly and completely identify any and all exceptions taken to the requirements of this specification. Drawings, literature, and any other information submitted with an offer do not constitute a stated or implied exception unless specifically identified in writing as an exception and accepted and implemented by an amendment to the solicitation or modification to a contract. Any exception deemed acceptable by the Government shall only apply to the specific item, requirement, etc. cited, and shall not extend to any other requirement.

The contractor proposing other than brand name items identified, when an "or equal" may be acceptable, shall furnish with their offer all technical data information, product descriptions, etc. to ensure that a determination may be made as to the equality of the product(s) offered (see provision titled "Brand Name or Equal" set forth in Section 52.211-6 of the Federal Acquisition Regulations).

1. SCOPE

This product description is for a Sedan, GSA Item 10B as specified within.

2.0 APPLICABLE DOCUMENTS

2.1 FEDERAL STANDARDS AND CODES

Code of Federal Regulations 49 CFR 393 (FMCSR) and 571 (FMVSS)
Application for copies of DOT publication should reference the code of Federal Regulations, 49 CFR, and the Federal Register and should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)
They may also be accessed on the Internet through GPO Access at http://www.access.gpo.gov.

2.2 SOCIETY OF AUTOMOTIVE ENGINEERS, INC

J1292 Automobile, Truck, Truck-Tractor, Trailer, and Motor Coach Wiring.
Application for copies of SAE publications should be addressed to SAE, Inc., 400 Commonwealth Drive, Warrendale, PA 15096

2.3 NATIONAL TRUCK EQUIPMENT ASSOCIATION

ULTRAMOD Spreadsheet
Application for the NTEA ULTRAMOD spreadsheet should be addressed to: NTEA, 37400 Hills Tech Drive, Farmington Hills, MI 48331-3414

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3.0 REQUIREMENTS

Materials shall be as specified herein. When materials are not specified, the vehicle and all parts thereof shall be furnished to provide the intended function, durability, safety, and maintain good long-term appearance. All materials shall be new, shall be suitable for the intended purpose, and shall be free of any characteristics or defects in material and workmanship, which may affect the performance, function, durability, and serviceability of the finished vehicle, or detract from its appearance. The government reserves the right to make the final determination of the suitability of all components and their arrangement on and in the vehicle

All conversions and modifications shall conform to all requirements of the OEM's Modifier/Upfitter Guide. The contractor shall ensure that the application and installation of major subcomponents and systems is compliant with subcomponent vendors' requirements and recommendations.

3.1 BASE CONFIGURATION VEHICLE

Part A: GSA Options: none required, ordering activities shall configure and select GSA options.

Part B: GSA Options: mandatory, none required

3.2 AFTERMARKET CONTENT, GENERAL REQUIREMENTS

The contractor shall procure all required resources, supplies, equipment, and perform all equipment installation to produce the sedans. The base vehicles will be shipped from the OEM to the place of performance. The work shall be executed at a single location to assure uniformed installation processes. The effort includes installing communications, electrical, lighting, and support equipment to produce fully-functional sedan capable of supporting covert law enforcement operations. The sedan shall meet all applicable DOT and FMVSS safety standards after modification. Modifications shall not disable vehicle OEM features, unless specified within.

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3.3 EMERGENCY LIGHTING AND PA/SIREN

The vehicle shall be equipped with a complete all LED emergency lighting system, with siren and PA. The emergency system shall include siren speaker, front, side, and rear lights. The emergency system shall only draw power from the vehicle battery when the ignition switch is in the “On” or “Run” positions. All equipment shall be installed in full compliance with manufacturer's guidelines and recommendations. The system shall be installed in accordance to the OEM’s Modifier/Upfitter Guide. Detailed layout and electrical schematics shall be created depicting the design solution.

The lighting/siren package shall include the following features:
Console siren/light controller shall be programmable, include hand-held controller/microphone, include PA volume adjust.

DESCRIPTION	DODGE
One (1) light/siren controller, Whelen CenCom Core, or equal, configured as required shall be provided. Horn shall remain functional when siren is activated.	CenCom Core 399 Series
One (1) hand held siren controller, Whelen CenCom Core, or equal,shall be provided	CCTL5
One (1) 100 watt siren speaker includes bracket, Whelen or equal	SA315P
Four (4) 90 degree bracket mount LED lights, in front grill position, one (1) red and one (1) blue, Whelen , or equal .	TLIB TLIR
Two (2) visor light bars with ten (10) LEDS with takedown, 1 red/ 1 blue, Whelen, or equal. Top of windshield shall be tinted to conceal the visor lights.	WECAN XLP Series
Two (2) bracket mount LED (2) blue, Whelen, or equal, installed interior , rear passenger windows	TLIB
Two (2) bracket mount LED (1) red and (1) blue, Whelen, or equal, rear window position	TLIB TLIR

3.4 RADIO PREP PACKAGE

The contractor shall provide and install power, ground, and wiring including the following unless noted otherwise. All cable ends shall be a minimum length of a 30" service loop.

The customer shall provide and install, after acceptance and delivery, the radio and hand held control head of their choosing.

The contractor shall supply and install one (1) power cable from B+ to the equipment tray	Motorola	HKN6110B	1
The contractor shall supply and install one (1) 03 control head remote mount cable routed from the hand held control (in OEM Console) to the equipment tray.	Motorola	PMLN4958B	1
The contractor shall supply and install one (1) ignition power cable from B+ sw (to be switched on by both accessory and ignition position) to the equipment tray	Motorola	HLN6863B	1
The contractor shall supply and install a speaker wire extension as needed to extend the speaker wire to under the OEM glove box	Speaker Wire	Length as required	1
The contractor shall provide and install an auxiliary radio speaker, rated at 7 watts	Motorola	B18-HSN4031 or RSN4003A	1
The contractor shall provide and install a covert triband antenna, standalone	Sti-Co	SKFN-TB-V/U/C-EAN-SP	1

3.5 EQUIPMENT TRAY

One (1) equipment tray shall be provided in the trunk area, for mounting of the siren/light control and government installed radio. Troy Products model AC-TRAY-38, or equal, with (1) 38 inch wide fence for the equipment tray,Troy Products model AC-FENCE-PI-38

3.6 CARGO LOCK BOX

One (1) cargo lock box shall be installed in the trunk. The cargo lock box shall be tethered by bolt-wing nut or cable, not permanently fastened to the vehicle.

The cargo lock box shall include lid with tumbler lock. The cargo lock box shall be universal fit. The interior bottom surface of the lock box shall include a matt or pad.

The OEM tire jack or tools may be relocated when installing the cargo lock box. The cargo lock box may have to be removed to access the spare tire. Five (5) sets of keys shall be provided.

Note: this is a cargo lock box and may not be suitable to all ordering activities for the purposes of storing weapons.

3.7 FLOOR MATS

One (1) complete set of aftermarket floor mats shall be provided and installed. The set shall include front and rear cabin positions, first and second row. The mats shall be custom designed for the specified vehicle, not universal fit. The mats shall be high density extruded material. The mats shall include channels and a reservoir to trap fluids. The mat color shall match the color OEM floor color.

DESCRIPTION	DODGE
One (1) set of floor mats, Husky, or equal, shall be provided.	RWD AWD

3.8 DC ELECTRICAL SYSTEM

All DC wiring shall be in accordance with the applicable portion of SAE J1292.
All DC wiring mounted to the chassis or outside the body shall be stranded copper conductors.
All DC wiring shall be routed in flexible loom or conduit (tie wraps are not acceptable) and in accordance to the OEM's Body Builder Layout Book.
All wiring shall be secured to prevent snags and pinching that could damage or disconnect the wire.
The wiring terminals used in all DC wiring shall grip the wire insulation as well as the conductor.
Fasteners, conduit, and conduit fittings for electrical wiring shall not exhibit electrolysis with adjacent materials.
Exterior wiring shall be accessible for replacement without removing any component of the SUV.
Grommets or electrical bulkhead fittings shall be employed for any wire passing through a structural member.
All DC wire shall be color-coded as specified in SAE J1292.

The wire and circuit breaker size shall be as follows:

Wire size (minimum)	Circuit breaker (maximum)
18 AWG	5 amperes
16 AWG	10 amperes
14 AWG	15 amperes
12 AWG	20 amperes
10 AWG	30 amperes
8 AWG	50 amperes

Corrosion protective coating shall be applied between ground lugs and the vehicle chassis.
Electrical conductors and cables routed in conduits and looms shall be continuous in length, connections, taps, splice, terminations shall not be concealed in conduit or loom unless reviewed and approved in advance by the government.
Conductors and cables may be terminated with the electrical/electronic devices' mating type connector or the vehicle OEM approved and released wire splice tool kit and procedures. Otherwise, the use of aftermarket butt splice, push-on (spade), bullet, ring, insulation displacement types of connectors are prohibited unless reviewed and approved in advance by the government.
Conductors and cables, rated up to 20 amperes, shall be terminated with environmentally sealed electrical connection system. Weather pack flexible pin and sleeve terminals with dual locking tangs shall be installed with calibrated ratchet type crimpers. Self-lubricating seals shall be installed on all-weather pack terminals. Connector housings shall be either in-line or panel-mount types.
The DC system shall be installed in accordance to the OEM's Modifier/Upfitter Guide

3.9 DC ELECTRICAL DISTRIBUTION AND CONTROL

In addition to the OEM provisions, at least one 12VDC branch power circuit shall be provided. The circuit shall be protected by Buss Series 18X Hi-Amp Circuit Breaker or equal. Switches shall be located on dash, near the dash, or in the console. Multiplexed wiring systems shall be installed to the extent possible

3.10 CONSPICUITY MARKINGS

Conspicuity markings shall be provided and installed. A vehicle engineering layout drawing with markings shall be created and provided by the contractor. The markings shall include:

Red/White DOT/FMSS308 reflective conspicuity tape on inside lower edge of trunk and trunk lid

3.11 RESERVED

3.12 VEHICLE OPERATOR, PREVENTIVE MAINTENANCE, SERVICE, PARTS AND ELECTRICAL SCHEMATICS MANUALS

Operating and maintenance manuals for all body installed equipment/systems and components shall be furnished with each vehicle. Literature shall include all systems and component items furnished on the VEHICLE including but not limited to the following: the Operator's Manual, Service Manual, Parts Catalog, Lubrication Charts, base vehicle modifications and upgrades, hydraulic system, generator system, converter, breaker panel, lighting components, a/c system, heater system, and any other component furnished. The service manuals shall include 12 VDC and 115 VAC as built wiring diagrams. All body, sub-systems, and equipment requirements described above shall be functionally organized in electronic formats.

Manuals shall be furnished and well organized, thoroughly cross-indexed and authentic with no extraneous material such as advertisements or irrelevant information. All publications shall be submitted in electronic format in the form of CD-ROM disks. Within the manuals, the vehicles shall be treated as a whole and not as a grouping of disassociated parts from various suppliers. It shall be the responsibility of the contractor to insure that all of the suppliers' subsystems are presented in sufficient detail to present a complete and clear picture of the whole VEHICLE and that terms and functional designations of wires and components are consistent throughout. The material in all manuals shall be identically organized and indexed with compatible numbering.

QUANTITIES AND TYPES OF MANUALS

The manuals below are required for each VEHICLE and shall be provided to the Government in the quantities and categories as follows:

Operator's Instructional Manual

Preventive Maintenance Manual

Service Manual

The Service Manual shall include the following:

System Interface Diagrams, Mechanical

Diagnostic and troubleshooting

Parts Manual

Electrical Schematics Manual

One electronic copy of each manual and schematics shall be provided

3.12.1 VEHICLE OPERATOR'S INSTRUCTION MANUAL

The Operator's Instruction Manual shall contain all information needed for the optimum operation of the vehicles; including general vehicle familiarization material, location, function, and operation of all controls, indicators, switches, and emergency procedures and trouble diagnoses.

The manual shall be logically organized with systems and elements considered in descending order of importance. Care shall be taken that all statements are clear, positive, and accurate with no possibility of incorrect implications or inferences.

3.12.2 VEHICLE PREVENTIVE MAINTENANCE MANUAL

The Preventive Maintenance Manual shall enable the maintainer to perform the periodic inspection and preventive maintenance tasks. These shall include all lubrication and inspection requirements for all apparatus requiring such work on a periodic basis to maintain the VEHICLEs in satisfactory working order. The contractor shall ensure that all apparatus supplied has an inspection interval determined by the component manufacturer.

The manual shall contain a detailed description of each component to enable a maintainer to maintain the vehicle. The manual shall include a complete systematic procedure for long term periodic maintenance requirements for all components.

3.12.3 VEHICLE SERVICE MANUAL
The Service Manual shall enable the technician to perform diagnostics and repairs of the completed VEHICLE. The Contractor shall ensure that all apparatus supplied is covered by the manual.

The Diagnostic and Troubleshooting section of the manual shall enable the technician to troubleshoot, adjust, and complete running repair for all systems on the vehicles. Running repair is the diagnosis and correction of any subsystem or component malfunction by adjustment, repair or replacement in order to return the vehicle to service in a reasonably short period of time. The section shall include a general description and operation of each system, block diagrams, signal flow diagrams, detailed schematics with narrative and functional wiring and piping diagrams.

3.12.4 VEHICLE PARTS MANUAL
The Parts Manual shall enumerate and describe every component with its related parts and Contractor part numbers. Supplier part numbers shall be included in their respective manuals. Cut-away and exploded drawings shall be used to permit identification of all parts not readily identified by description. Each part or component shall be identified as being part of a functional group. An important aspect of the parts catalog shall be the complete itemization of all servicing materials (oils, paints, special compounds, greases, other) required on the vehicles and the component requiring its use.

3.12.5 VEHICLE ELECTRICAL SCHEMATICS MANUAL
The Electrical Schematics Manual shall enumerate and describe every component with its related electrical schematics and Contractor electrical schematics. Supplier schematics shall be included.

4.0 TESTING, INSPECTION/ACCEPTANCE
Every vehicle shall undergo testing and inspection performed by the contractor. The contractor shall provide the Government with documentation of the testing. All deficiencies identified during testing and inspection shall be documented and resolved prior to delivery of each vehicle.

4.1 VEHICLE WEIGHT AND PAYLOAD ESTIMATES
The completed vehicle shall be weighed to determine the curb weight and the available payload capacity and distribution. Occupant weight shall be calculated at 175 pounds per seated position. Data for all content shall be compiled, calculated, and recorded in accordance to instructions and format contained in the NTEA ULTRAMOD spreadsheet.

4.2 VEHICLE ROAD TEST
All vehicles shall be road tested. The road test shall be for a minimum of 10 miles. The road test shall be considered successful if all mounted and items remain secure and operational.

4.3 VEHICLE IDLE TEST
All vehicles shall be idle tested with all electrical equipment activated, emergency lights on (less siren). The idle test shall be for a minimum of 1 hour. The idle test shall be considered successful if all equipment and the vehicle remain functional (no shutdowns) and within normal operating (stable) temperatures and conditions. The ambient temperature shall be recorded.

4.4 VOCATIONAL TEST
For each vehicle, all equipment shall be functionally tested and verified to operate in accordance with manufacturer's operating instructions and to the government's satisfaction.

4.5 INSPECTION/ACCEPTANCE
The Government reserves the right and discretion to request the contractor to furnish a first order (FO) vehicle for verification as meeting the requirements herein. The FO shall be, prior to offering for verification by the Government, complete in every respect, i.e., all components, equipment, and accessories assembled and installed and operational. Prior to presentation, the FO shall be fully inspected for compliance with all contract requirements by the contractor's quality inspectors. Such inspection results, including any interim inspections, shall be documented and presented to the government representatives with the FO. Inspection results shall include all deficiencies found and the corrective actions taken. Upon Government approval of the FO, production methods shall assure that subsequent vehicles are identical to the approved FO. The inspection of the FO shall be recorded by digital video or digital photographs showing the

assembly of all major subassembly components. After Government acceptance of the FO, the contractor shall only substitute materials, components, or assemblies upon government acceptance of such and embodied in a contract modification. Upon acceptance of the FO, the vehicle shall be shipped in accordance with shipment terms of the contract. The contractor shall produce two copies of the files of the FO. One copy shall be retained by the contractor as an approved sample; the second copy shall be retained by the GSA Engineer. Failure of the FO to meet the requirements of the specifications may be cause for the Government to refuse acceptance of all vehicles until corrective action has been taken.

5.0 WARRANTY

The contractor shall provide a 3 year/36,000 mile warranty. The warranty shall include the commercial furnished equipment warranties, including all other parts and components required herein, against parts failure or malfunction due to design, construction or installation errors, defective workmanship, and missing or incorrect parts, for a minimum period of 3 years/36,000 miles from date of acceptance. Some components may require the purchase of an extended comprehensive warranty from the manufacturer to meet the minimum terms. If the contractor receives from any supplier or subcontractor additional warranty on the whole or any component of the vehicles, in form of time or mileage, including any prorated arrangements, or the contractor generally extends to its commercial customers greater or extended warranty coverage, the government shall receive corresponding warranty benefits. The warranty coverage shall begin when the Government accepts the vehicles from the contractor FOB point of origin/destination.

Labor, parts, shipping cost, per diem and travel for warranted repairs within the Continental United States (CONUS), shall be the responsibility of the contractor. This shall include 3rd party Original Equipment Manufacturer (OEM) selected vendors for corrective action or warranty issues on the vehicle if applicable. Warranty registration cards shall also be provided as applicable. The contractor shall furnish the Government with warranty certificates showing evidence that the warranty requirements above have been met.